April 21, 2004 - System Issues and Status

Table 1: Process Strategy/Geier as of 04/21/04
Active Requests in order of priority (1 of 4)

Production Request (PR)	Satellite	Production Strategy	Data Product (SS#)	PGEs	Data Dates	Special Status
PR 32-04		ValR11	GGEO (SS11)	11.1P5 11.1P6 11.1P7 11.1P8 11.2P2 11.4P1	3/00 - 6/03 every 3rd month	Rerun GGEO prior to running Edition2A SRBAVG. Run Aqua Beta3 SSF/ SFC while GGEO processing.
PR 37-04	Aqua	Beta3	SSF (SS4.5-6)	4.5-6.3P3 4.5-6.2P2 4.5-6.4P1	12/02	Rerun data to recover data tossed by 3 channel check.
PR 36-04	Aqua	Beta3	SFC (SS9)	9.2P1 9.3P1 9.4P1	12/02	
PR 31-04		Edition2A	GGEO (SS11)	11.1P5 11.1P6 11.1P7 11.1P8 11.2P2 11.4P1	1/01 - 12/01	ValR11 must be approved before this starts.
PR 18-04	Terra	ValR1	SRBAVG (SS10)	10.1P1	1/01 - 12/01	Waiting on Edition2A GGEO and code delivery.
PR 39-04 to 43-04	Terra	ValR4	BDS/ ERBElike (SS1-3)	1.3P3 1.2P1 2.4P1 2.2P1 2.3P1 2.3P2 3.1P1	11/30/03 - 1/1/04	Once ValR4 approved, run Edition2.
PR 31-04		Edition2A	GGEO (SS11)	11.1P5 11.1P6 11.1P7 11.1P8 11.2P2 11.4P1	3/00 - 12/00 1/03 - 6/03	ValR11 must be approved before this starts.
PR17-04	Terra	Edition2A	SRBAVG (SS10)	10.1P1	3/00- 2/02	ValR1 must be approved before this starts.

Table 1: Process Strategy/Geier as of 04/21/04
Active Requests in order of priority (2 of 4)

Production Request (PR)	Satellite	Production Strategy	Data Product (SS#)	PGEs	Data Dates	Special Status
M PR 99-03		GEOS4	MOA (SS12)	12.1P1	1/04 - present	Standing request to process data as it arrives.
M PR 109-03		GEOS4	PMOA (SS9.1)	9.1P1	1/04 - present	
PR 116-03	TRMM	Beta3	TSI (SS7.1)	7.1.1P1	4/98, 7/98, 8/98	Delivery expected 2-4 weeks after SRBAVG.
PR 97-03	Terra	Edition2-QC	SSF (SS4)	4.1-4.1P2 4.1-4.2P1 4.1-4.2P2 4.1-4.3P1	3/02 - 2/03	Processing as corrupted data blocks getting replaced.
PR 10-04, 11-04	Terra	Edition2A	SSF (SS4.5-6)	4.5-6.1P2 4.5-6.2P2 4.5-6.4P1	3/02 - 2/03	
PR 9-04	Terra	Edition2A	SFC (SS9)	9.2P1 9.3P1 9.4P1	3/02 - 2/03	Run as SSFs become available.
PR17-04	Terra	Edition2A	SRBAVG (SS10)	10.1P1	3/02- 2/03	ValR1 must be approved before this starts.
PR 8-04		Edition2	GGEO (SS11)	11.4P1	3/02 - 12/02	Cancelled 4/12/04.
PR 8-04		Edition2	GGEO (SS11)	11.1P5 11.1P6 11.1P7 11.1P8 11.2P2 11.4P1	1/03 - 2/03	11.1P5 - 11.2P2 completed. 11.4P1 cancelled 4/12/04.
PR 13-04	Aqua	Beta2	SRBAVG (SS10)	10.1P1	12/02	Run once GGEO and SFC inputs are available.

Table 1: Process Strategy/Geier as of 04/21/04
Active Requests in order of priority (3 of 4)

Production Request (PR)	Satellite	Production Strategy	Data Product (SS#)	PGEs	Data Dates	Special Status
Standing requests AM-PR 1-00 to 7-00	Terra	Edition1	BDS/ ERBElike (SS1-3)	1.1P3 1.2P1 1.3P1 1.3P2 2.1P1 2.2P1 2.3P1 2.3P2 3.1P1 ~~3.2P2~~	For 3/04 - present	DO NOT PROCESS 3.2P2 - it is on hold.
Standing requests AM-PR 8A-02 to 11-02	Terra	Edition2	BDS/ ERBElike (SS1-3)	1.2P1 1.3P3 2.2P1 2.3P1 2.3P2 2.4P1 3.1P1 ~~3.2P2~~	For 7/03 - present	Need Gains and SCR before processing any further. (ValRX approved) DO NOT PROCESS 3.2P2 - it is on hold.
Standing requests PM-PR 7-03A to 10-03	Aqua	Edition1	BDS/ ERBElike (SS1-3)	1.1P5 1.2P1 1.3P1 1.3P2 2.2P1 2.3P1 2.3P2 3.1P1 ~~3.2P2~~	For 3/04 - present	Do not start until all January'04 data received. DO NOT PROCESS 3.2P2 - it is on hold.
Standing requests PM-PR 11-03, 13-03 to 17-03	Aqua	Edition2	BDS/ ERBElike (SS1-3)	1.3P3 1.2P1 2.2P1 2.3P1 2.3P2 2.4P1 3.1P1 ~~3.2P2~~	For 7/03 - present	Need Gains and SRF before processing any further. (ValRX approved) DO NOT PROCESS 3.2P2 - it is on hold.
Standing request PM-PR 12-03	Aqua/ Terra	Edition2	ES4/ES9 (SS3)	3.2P1	For 7/03 - present	Need Gains and SRF before processing any further. (ValRX approved)
M-PR 3-02		NSIDC-NESDIS	EICE ESNOW (SS4.1)	4.1-4.0P1	Standing request	

Table 1: Process Strategy/Geier as of 04/21/04
Active Requests in order of priority (4 of 4)

Production Request (PR)	Satellite	Production Strategy	Data Product (SS#)	PGEs	Data Dates	Special Status
PR 97-03	Terra	Edition2-QC	SSF (SS4)	4.1-4.1P2 4.1-4.2P1 4.1-4.2P2 4.1-4.3P1	3/03 - 12/03	Run at LOW priority after 2/03 finishes.
PR 10-04, 11-04	Terra	Edition2A	SSF (SS4.5-6)	4.5-6.1P2 4.5-6.2P2 4.5-6.4P1	3/03 - 12/03	
PR 9-04	Terra	Edition2A	SFC (SS9)	9.2P1 9.3P1 9.4P1	3/03 - 12/03	
PR 35-04	Terra	Edition2A	CRS (SS5)	5.0P1 5.1P1 5.4P1	7/00 - 12/00	Run 2000 months whenever waiting on SSF.
PR 34-04	Terra	Edition2A	FSW (SS 6)	6.1P1 6.2P1 6.3P1	7/00 - 12/00	Run 2000 months whenever waiting on SSF.
PR 33-04	Terra-FM2	Edition2A	CRS (SS5)	5.0P1 5.1P1 5.4P1	7/01	Done 4/10/04.

Table 2: Process Strategy/Geier as of 04/21/04
Coming Soon (1 of 2)

Active Month	Satellite	Processing Strategy	Data Product (SS#)	Data Dates	Comments
6/04	Terra	Beta2	TSI(SS7.1)	12 months	
	Aqua	Edition1A	SSF(SS4)	First 12 months	
	Aqua	Edition1A	SFC(SS9)	First 12 months	
	Aqua	Edition1A	SRBAVG (SS10)	First 12 months	
	Aqua	ValR4	BDS/ERBE-like(SS1-3)	1 month	Verify newly delivered gains and spectral response functions.
7/04	Terra	Edition2B	SSF (SS4.5-6)	50 months	Updated ADMs, code correction, correct clear area coverage as needed (50-60 deg lat).
	Terra	Edition2B	CRS(SS5)	50 months	
	Terra	Edition2B	SFC(SS9)	50 months	
	Terra	Edition2B	FSW(SS6)	50 months	
	TRMM	Beta3	Synoptic SARB (SS7.2)	9 mo	Rerun 3 months of SYNI to use as input for SYN/AVG/ZAVG.
	Terra	Beta2	Synoptic SARB (SS7.2)	4 seasonal months & 3/00	
8/04	Terra	ValR4	BDS/ERBE-like(SS1-3)	1 month	Verify newly delivered gains and spectral response functions.
		ValR11	GGEO (SS11)	4 months	3/03 - 6/03; requires redelivery to handle GOES-9 and GOES-12; requires coefficients.
		Edition2A	GGEO (SS11)	4 months	3/03 - 6/03; ValR11 must be approved.
	Aqua	Beta1	CRS(SS5)	First 12 months	
	Aqua	Beta1	FSW (SS6)	First 12 months	Test at SCF to verify no redelivery needed.
9/04	TRMM	Beta3	SYN/AVG/ ZAVG(SS8)	9 mo	Need Synoptic SARB input.
	Terra	Beta2	SYN/AVG/ ZAVG(SS8)	4 seasonal months & 3/00	Need Synoptic SARB input.
	Aqua	Edition1A	SSF(SS4)	Second 12 months	
	Aqua	Edition1A	SFC(SS9)	Second 12 months	

Table 2: Process Strategy/Geier as of 04/21/04
Coming Soon (2 of 2)

Active Month	Satellite	Processing Strategy	Data Product (SS#)	Data Dates	Comments
	Terra	Edition2B	SRBAVG (SS10)	50 months	
10/04		ValR11	GGEO(SS11)	? months	7/03 - 6/04; requires coefficients.
		Edition2A	GGEO(SS11)	7/03 - 6/04	
	TRMM	Beta4	Synoptic SARB (SS7.2)	9 months	
	Terra	Beta3	Synoptic SARB (SS7.2)	12 months	
11/04	TRMM	Beta4	SYN/AVG/ ZAVG(SS8)	9 months	
	Terra	Beta3	SYN/AVG/ ZAVG(SS8)	12 months	
	Aqua	Beta3	SRBAVG (SS10)	7/03 - 6/04	
	Aqua	Beta1	TSI(SS7.1)		Not on Bruce's schedule.
	Aqua	Beta1	Synoptic SARB (SS7.2)		Not on Bruce's schedule.
	Aqua	Beta1	SYN/AVG/ ZAVG(SS8)		Not on Bruce's schedule.

Table 3: April 21, 2004 - System Issues and Status

Activity	Lead	Status
CM	Ayers	• See Table 4 for SCCR activity since the last DMT meeting. SCCRs that need to be reviewed follow Table 4. (Ayers) • Tested the following deliveries and released them to the ASDC: CERESlib (SCCR 520) and GGEO (SCCR 518). (Ayers, Saunders) • Delivered the following sample read packages to the ASDC: TRMM FSW, Terra FSW, and SRBAVG. (Ayers) • Delivered Instrument gains and ERBE-like spectral response function files to the ASDC. (Saunders, Ayers) • Delivered updated Instantaneous SARB files and documentation to the ASDC. (Saunders)

Table 4: SCCR Activity April 5 at 3:00 p.m. - April 20 at 12:00 p.m.

SCCR	S	U	A	C	D	SS	Page No.	Comments
514				X		1		
517				X		1		
518			X			11		
519			X	X		11		
520			X	X		CERESlib		
521	X	X	X			6	8	
522	X		X			6	9	
523	X					4.5-4.6	9	

S=Submitted; **U**=Updated; **A**=Approved; **C**=Closed; **D**=Disapproved; **SS**=Subsystem

CERES Software Configuration Change Request Submittal

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Subsystem: TISAgrid6.0 SCCR Date: 04/06/2004 SCCR Number: 521

Description of Change (Science):
N/A

Reason for Change (Science):
N/A

Description of Change (non-Science):
Updates to FSW read software to support TRMM Edition2C, Terra Beta3 & Edition2A FSW products.

Reason for Change (non-Science):
Included examples that will work with both the delivered sample HDF file and the FSW data sets.

Affected PGEs : N/A

Est. Time to Complete Changes : 1 week
Planned Delivery Date : April 9, 2004
Impact : none

Date: 04/06/2004 Status: SUBMITTED

Originator: RAJU, RAJA (SAIC)

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ADDITIONAL CHANGES TO SCCR NO. 521:
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Description of Change (Science):
N/A

Reason for Change (Science):
N/A

Description of Change (non-Science):
Updates to FSW read software to support TRMM Edition2C. (SCCR 409 & 423)

Reason for Change (non-Science):
Included examples that will work with both the delivered sample HDF file and the FSW data sets.

Affected PGEs : N/A

Est. Time to Complete Changes : 1 week
Planned Delivery Date : April 9, 2004
Impact : none

Date & Time: 2004-04-08 09:14:23

Originator: RAJU, RAJA (SAIC)

CERES Software Configuration Change Request Submittal

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Subsystem: TISAgrid6.0 SCCR Date: 04/09/2004 SCCR Number: 522

Description of Change (Science):
N/A

Reason for Change (Science):
N/A

Description of Change (non-Science):
Updates to FSW read software to support Terra Edition2A FSW products.(SCCR 475, 476, 499)

Reason for Change (non-Science):
Changes to Julian time SDS from 4-byte REAL to 8-byte REAL. New SDS (Snow/Ice Percentage from Imager History) was added to Terra Edition2A product. Included examples that will work with both the delivered sample HDF file and the FSW data sets.

Affected PGEs : none

Est. Time to Complete Changes : 1 week
Planned Delivery Date : April 12, 2004
Impact : none

Originator: RAJU, RAJA (SAIC)

CERES Software Configuration Change Request Submittal

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Subsystem: Inversion SCCR Date & TIME: 2004-04-15 14:16:44 SCCR No.: 523

Description of Change (Science):
Remove 3 channel comparison check from the Inversion Main processor for Aqua, PGE 4.5-6.1P3.

Reason for Change (Science):
To allow processing of TOA fluxes for all footprints that have in-range unfiltered radiances.

Description of Change (non-Science):
N/A

Reason for Change (non-Science):
N/A

Affected PGEs : CER4.5-6.1P3

Est. Time to Complete Changes : 1 week
Planned Delivery Date : April 23, 2004
Impact : required for Aqua Edition1A SSF processing

Originator: NOLAN, SANDY K. (SAIC)

Table 5: April 21, 2004 - Subsystem Issues and Status (1 of 5)

SS No.	SS Lead	Status	Problems
1.0	Cooper	• Continued tracking receipt of Aqua and Terra data at ASDC. (Cooper, Snyder) • Redelivered Terra and Aqua gain coefficient updates. Aqua has been redelivered to update another parameter that affects double drift correction in the Edition2 processor. (Cooper, Walikainen) • Working on TRMM-Terra validation for a draft of a paper. Also attempting to track down that infamous "5%" discrepancy. (Szewczyk) • An error in the double drift correction algorithm in the Edition1 processor was discovered. Worked to find the error and implement the fix. Delivery of the fix should be on Friday. (Cooper, Spence)	
2.0	Walikainen	• Delivered Terra Spectral Response Functions. [July 2003 - Dec 2003]. (Walikainen) • Continuing to examine the production email generated by the QC checker software. (Walikainen) • Continuing to inspect ERBE-like Aqua and Terra output plots and QC reports on the Web. (Walikainen) • Generating Edition Comparison plots for each instrument. (Walikainen) • Determined best-fit polynomials for three channel consistency check. Replacing Inversion's linear fit with these polynomials will bring the ERBElike and Inversion checks closer, dropping the biggest difference from 16% to 2%. (Walikainen) • Examining flagged bit flips. (Walikainen)	
3.0	Walikainen	Combined with above.	

Table 5: April 21, 2004 - Subsystem Issues and Status (2 of 5)

SS No.	SS Lead	Status	Problems
4.1	Sun-Mack	• Processed CloudVis images for TRMM VIRS Edition2 for the Oklahoma ARM Site and San Nicolas Island through April 1999. Processed CloudVis images for Terra MODIS Edition2-QC for the Alaska ARM Site through June 2002. Posted results on the web. (R. Brown) • Processed QC statics and global images for Terra MODIS Edition2-QC for September and October 2002. Posted results on the web. Also processed daily and monthly QC results for offline study of September 2002. (R. Brown) • In the process of studying corrupt MODIS files. (Walt, R. Brown, Chen, Sun-Mack)	
4.2	Sun-Mack	Combined with above.	
4.3	Sun-Mack	Combined with above.	
4.4	Miller	• Developed testing procedures for the Operating System and compiler upgrade. (Miller) • Started preparing for operating system testing. (Miller) • Analyzed two days SSF processed using both corrupted and retransmitted MODIS data. Global errors and standard deviation of errors were calculated and summarized in a spreadsheet. Differences between the two runs were gridded to 1 degree regions and plotted. (Miller) • Tested and debug plotting software created earlier. (Miller) • Monitored Terra Edition2-QC processing. Twenty, 16, and 8 hours failed for September, October, and November 2002 respectively. Two hours had no MODIS data, the rest had missing or failed IESs. (Miller) • Processed 14 MODIS granules at the SCF using both corrupted and retransmitted MODIS data. These were run individually to produce CloudVis files for analysis. (Miller)	

Table 5: April 21, 2004 - Subsystem Issues and Status (3 of 5)

SS No.	SS Lead	Status	Problems
4.5	Nolan	• Continued to develop new PGE CER4.5-6.6P2. (Hoppe) • Modified the Inversion test plan and operator's manual for PGE CER4.5-6.6P2. (Hoppe) • Completed testing of the 9 Inversion PGEs *ctb-g* with new SGI Operating System using executable compiled on warlock. All Test Plan cases were run and no differences were found. (Nolan) • Compiled and ran the 9 Inversion PGEs on *ctb-g* with new SGI Operating System and compilers. All Test Plan cases were run and the differences found were the same as found on warlock after recompilation with the current CERESlib. Additional testing was done to verify that all differences found were due to updates in CERESlib LW Model B Surface Flux and GRing modules. (Nolan) • Modified the Main Aqua Processor PGE, CER4.5-6.1P3, to remove the 3 channel Comparison Test. A test was using the December 14, 2002 Beta2 FM3 SSFs as input.and the problem of missing fluxes over Australia was corrected. (Nolan)	
4.6	Nolan	Combined with above.	
5.0	Coleman	• Working with SSI&T to resolve glitches with just-delivered PGE CER5.41. (Caldwell) • Modified logic to correctly identify aerosol type in constituency flags for the few instances where round off causes an error. (Caldwell)	
7.2	Coleman	• Modifying code to correctly interpret input data on nested grid instead of the regular CERES grid. Also modifying code to not make the same calculations repeatedly at the poles. With TISA, studying feasibility of only storing nested grid regions on the TSIB and SYNI files. (Zentz) • Incorporating latest Langley Fu-Liou model changes provided by Fred Rose. (Caldwell, Zentz)	
12.0	Coleman	• No new updates.	

Table 5: April 21, 2004 - Subsystem Issues and Status (4 of 5)

SS No.	SS Lead	Status	Problems
7.1	Nguyen	• Added the GGEO log optical depth. (Nguyen) • Changed the non-nested TSI outputs to nested outputs and ran January 2001 Terra for testing. (Nguyen)	
8.0	Nguyen	• No new updates.	
10.0	Nguyen	• Ran March 2000 Terra with the correct halfsine fit of the total-sky TOA LW for Dave Young for validation. (Nguyen) • The read SRBAVG software did not run on the SUN. Modified the read SRBAVG software to run for SGI and SUN. Added SRBAVG sample file to the package. Re-delivered the updated package to CM. (Nguyen)	
6.0	Raju	• FSW Sample read packages for TRMM Edition2C & Terra Edition2A data sets were delivered to CERES CM. (Raju)	
9.0	Raju	• Communicated with Lisa Link (ASDC) regarding the SFC process run times and received run time statistics for 9/22/02 for hours 00-23, hourly process ran on average 12.5 minutes at ASDC. Processed same day & hours at SCF and the process ran on average 7 minutes. Looking into gridding code to see if there are any code changes that would improve the process. (Raju, Stassi)	
11.0	Stassi	• The base IR calibration table for METEO-7 was changed from the IR1 table to the IR2 table, as found on the EUMETSAT Web site. There are only small differences between the two tables, but Tak indicated that the IR2 table is the one that should be used. (Stassi) • The GGEO record structure has been changed with the addition of log optical depth to each cloud layer. Version information was added to the GGEO data file header record so that old format files can be distinguished from the new format files. The CERESlib ggeo.f90 and ggeo_file.f90 modules were modified to be able to access GGEO files in either old or new format. (Stassi)	

Table 5: April 21, 2004 - Subsystem Issues and Status (5 of 5)

SS No.	SS Lead	Status	Problems
11.0	Stassi (Cont'd)	• The July 2001 data was processed with the updated GGEO code. A before/after comparison of the data showed no differences in the final outputs, except for minor differences in the METEO-7 IR data, which was expected. The output GGEO product was given to the TISA Averaging subsystem which ran and verified the GGEO results. (Stassi, Nguyen) • The GGEO subsystem was delivered to CERES CM. (Stassi) • A "clean" option was added to the runtest script. (Stassi) • The PCF generator scripts for the Intercalib and Cloudplot PGEs were modified to check for the existence of the GGEO/GGEOp file before attempting to read the satellite information from the file metadata. (Stassi)	
CERESlib Stassi/Ayers		• A log optical depth parameter was added to cloud_param_type in the cloudParam.f90 module (used by the GGEO subsystem). (Stassi) • The ggeo.f90 and ggeo_file.f90 modules were updated for the GGEO delivery. (Stassi) • CERESlib was delivered to CERES CM. (Stassi) • The SGI versions of CERESlib were tested on the CERES testbed system with the new OS and SGI compilers. (Stassi)	